

New seminal environmental works: nine review articles

Simonis, Udo E.

Veröffentlichungsversion / Published Version
Rezension / review

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:
SSG Sozialwissenschaften, USB Köln

Empfohlene Zitierung / Suggested Citation:

Simonis, U. E. (2004). *New seminal environmental works: nine review articles*. (Discussion Papers / Wissenschaftszentrum Berlin für Sozialforschung, 2004-007). Berlin: Wissenschaftszentrum Berlin für Sozialforschung gGmbH. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-196536>

Nutzungsbedingungen:

Dieser Text wird unter einer Deposit-Lizenz (Keine Weiterverbreitung - keine Bearbeitung) zur Verfügung gestellt. Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

Terms of use:

This document is made available under Deposit Licence (No Redistribution - no modifications). We grant a non-exclusive, non-transferable, individual and limited right to using this document. This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

Udo E. Simonis

New seminal environmental works

Nine review articles

Best.-Nr. P 2004-007

**Wissenschaftszentrum Berlin
für Sozialforschung (WZB)**

August 2004

**Beim Präsidenten
Emeriti Projekte**

Contents

1.	Red Sky at Morning. America and the Crisis of the Global Environment.....	3
2.	Green Giants? Environmental Policies of the United States and the European Union.....	8
3.	Environmental Politics in Japan, Germany, and the United States.....	8
4.	Natur und Macht. Eine Weltgeschichte der Umwelt.....	14
5.	Mensch – Natur – Wissen. Grundlagen der Umweltbildung.....	19
6.	Our Common Journey. A Transition Toward Sustainability.....	23
7.	Institutionelle Reformen für eine Politik der Nachhaltigkeit.....	27
8.	Turning Point. An End to the Growth Paradigm.....	30
9.	Limits to Growth – The 30-Year Update.....	33

Red Sky at Morning. America and the Crisis of the Global Environment

By James Gustave Speth

New Haven and London: Yale University Press, 2004, XV + 275 pp.

ISBN 0-300-10232-1.

“Red sky at night, sailors delight; red sky at morning, sailors take warning” – is a saying amongst sailors often borne out by experience. Gus Speth, the grand old man of American environmentalism, has written a shake-up book, a real danger signal. Actually, he is not that old, but old enough to get angry again. And angry Speth is about the failures to protect the global ecology, angry about the incompetence of the international community to prevent biological impoverishment – sad about the US administration whose priorities have strayed badly off the path. A little angry also on himself: “My generation is a generation, I fear, of great talkers, overly fond of conferences. On action, however, we have fallen far short” (p. 8).

In recent years, quite a few books and reports have been published on the state of the global environment, and on global environmental governance. None, I think, is like Speth’s book that combines qualities that seldom go together: extensive empirical evidence, razor-sharp analysis, and personal engagement, compassion even.

The central hypothesis of the book is straightforward: It is about challenging those who may believe that the international negotiations, treaties and other agreements of the past decades have prepared us to deal with global environmental threats; they haven’t: “The current system of international

efforts to help the environment simply isn't working. The design makes sure it won't work, and the statistics keep getting worse. We need a new design, and to make that happen, civil society must take the helm" (p. xii).

In four parts, Speth starts off to present such a new design by telling the story of how things got the way they are now – and how we can change them.

Part I (pp. 11-73) is on how environmental challenges increasingly go global. He is presenting "A World of Wounds", sweeping and disturbing evidence on the two mega trends of environmental degradation - industrial pollution and biological impoverishment - that occur in an increasingly fuller world. For such crucial issues as deforestation, loss of biodiversity, and climate change, he says, we have already run out of time. Speth is not quoting the Meadows at this point, but he makes it very clear: here, we are already beyond the limits. Instead, he is citing Dante's notice at the entrance of Hell: "Abandon all hope you who enter" (p. 11) and some of the statistics he is presenting are indeed hellish. Yet abandoning hope, he believes, is precisely what we must *not* do: "However bad the situation looks, remember: there are solutions" (p. xiii) – better solutions than the ones discussed and presented in the past.

Thus, part II of the book (pp. 75–116) is a really fine review of the first attempts at global environmental governance. But no doubt, it is a review of an "Anatomy of Failure". Given the magnitude of the challenges, the responses mounted by the international community appear pitifully weak. Undoubtedly, international environmental affairs have become a major subject of scholarly inquiry and teaching, a large body of relevant scholarship now exists – though only one environmental research was to win a Nobel prize so far (*Rowland, Molina, Crutzen*).

It is interesting, Speth says, to contrast the environmental field with the economic one: The phrase “managing the global economy” comes easily; but “managing the global environment” still sounds strange somehow, futuristic even, although it should not: “The global environment is more of an integrated system than the global economy; it is even more fundamental to human well-being” (p. 78). The bottom line is that the treaties, agreements, and protocols do not drive the changes that are needed: “The Climate Convention is not protecting the climate, the Biodiversity Convention is not protecting biodiversity, the Desertification Convention is not preventing desertification, and even the older and stronger Convention on the Law of the Sea is not protecting fisheries”. In this manner, global environmental problems have gone from bad to worse: “Governments are not yet prepared to deal with them, and, at present, many governments... lack the leadership to get prepared” (p. 97).

Speth mainly blames his own country for the state of affairs: “Following its leadership on ozone depletion, the United States has typically been the principal holdout on international environmental agreements” (p. 88). And, furthermore: “If there is one country that bears most responsibility for the lack of progress on international environmental issues, it is the United States” (p. 109).

It is well known that the Bush administration has rejected the Kyoto Protocol, but the list of important environmental agreements not ratified by the United States is much longer (see p. 110). Speth quotes political philosopher Benjamin Barber on the reasons for this: “The policies can be traced directly to that proud disdain for the public realm that is common to all market fundamentalists, Republicans and Democrats alike... The United States fails to see that the international treaties it won’t sign, the criminal

court it will not acknowledge, and the United Nations system it does not adequately support are all efforts... at developing a new global contract to contain the chaos... The ascendant market ideology claims to free us, but it actually robs us of the civic freedom by which we control the social consequences of our private choices” (p. 111).

Part III of the book (pp. 117–147) is a major analysis of the underlying causes, the drivers of global environmental impacts, among them the well-known IPAT drivers: population, affluence and technology, and the forces loosed upon the world by the globalisation of the economy.

In part IV (pp. 149–201), Speth presents his own solutions to the problems discussed. He calls his vision the “eight-fold way” – mega trends or transitions we need for global environmental protection and sustainable development (transitions 1 – 8): A stable or smaller world population; free of mass poverty; environmentally benign technologies; environmentally honest prices; sustainable consumption; ecological knowledge and learning; good governance; and active citizenry, a transition towards culture and honest environmental values.

This, in my mind, is the major part of the book, a genuine contribution, offering many interesting and provoking ideas and suggestions – on FROG philosophy, GEOpolity, and taking JAZZ to scale, on transitions that need to be debated and must take place in local, national, and international institutions to enable global environmental governance to succeed.

This reviewer was especially pleased to find Gus Speth to be among the promoters of transforming the United Nations Environment Program (UNEP) into an effective World Environment Organisation (WEO): “Having a well-funded World Environment Organisation... would make a major difference” (p. 179), he says.

There is an interesting and imaginative addendum to the book, a part V so to speak, the result of a collaboration with Kelly Levin and Heather Creech, entitled *Resources for Citizens* (pp. 203 – 228), and structured according to Speth's "eight-fold way" (the eight major transitions). It is a documentation of US citizen actions (on organisations and Web-based resources) in areas where individuals have an impact on global environmental challenges, i.e. in their role as voters, investors, consumers, activists, and educators. (Reading this chapter on describing a multitude of citizen actions, readers will wonder how long the present US administration can further negate global environmental governance issues).

The main message of the book in this way is further specified and becomes very concrete – while the author's anger becomes more conciliatory: Major changes are in order, changes that must be driven by a sense of urgency. Effective global environmental governance needs a fair legal basis and strong institutions, but it would not succeed without higher environmental consciousness and an active citizenry.

Gus Speth's book thus is alarming and visionary at the same time. It is an important and authoritative book on a looming global disaster – and on how to avoid it. If books can change the way we understand the future of our planet, this book will.

To appear in: *Environmental Values*, Vol. 13, No. 3: a German version appeared in: *Universitas. Orientierung in der Wissenswelt*, Vol. 59, No. 3.

Green Giants? Environmental Policies of the United States and the European Union

By Norman J. Vig and Michael G. Faure (Eds.)

Cambridge, Mass. and London: The MIT Press, 2004, XIII + 398 pp.

ISBN 0-262-72044-2.

Environmental Politics in Japan, Germany, and the United States

By Miranda A. Schreurs

Cambridge, UK: Cambridge University Press, 2002, XIII + 291 pp.

ISBN 0-521-52537-3.

Giants, they may be, the US and the EU, the US, Japan, and Germany, especially in economic terms. But truly green they are certainly not yet, despite what is reported in these two books on environmental policies and politics. They are, no doubt, major players influencing the global environment and the direction environmental protection has taken and will take in the future. Their ecological footprints are still large and their ecological rucksacks heavy.

Actually, the volume edited by Vig and Faure is not about the greening of either the US or the EU, but compares major policy trends in these two parts of the world. The book by Schreurs could be seen that way too, but perhaps better as to how different the green colour shines when exposed to a thorough comparative study on internal environmental politics.

Vig and Faure obviously were motivated by the fact that the relations between the US and Europe (again) are at a low level, and that growing differences by the two sides over environmental policy may not only make transatlantic cooperation increasingly difficult but could seriously weaken the capacity of the international community to deal with a host of global environmental problems, the necessary priorities, and the methods of addressing them. They believe there to be an urgent need for a new and strategic dialogue between the US and the EU to discuss and strengthen common interests in protecting the planet.

The sixteen authors with different backgrounds from both continents were asked to test that hypothesis, clarify policy differences, and to specify the evidence for divergence across a range of environmental policy issues. Overall, the contributors present a mixed picture, and the editors worked hard to reconcile the problems and differences in their long concluding chapter.

Although there is clearly a growing divergence over a number of international issues (especially climate change) and the principles and measures to address them, there appear to be numerous common trends in domestic regulatory practices, convergence even. One author, Jonathan B. Wiener, goes so far as to suggest that the widely held perception that the US and the EU have undergone a role reversal in environmental leadership is simply false: “Claims that US and European environmental policies are converging or diverging miss the more complex ... reality” (p. 100). Instead, he sees a continuous process of balancing some risks against other risks, an interaction and mutual learning, the gradual evolution of standards and procedures on both sides – “hybridization”, as he calls it.

Divergence, convergence, hybridization in the substance and objectives of environmental policies? I think every reader of this interesting and controversial book will have to make his own judgement. This, however, will not be easy as the cases presented differ in kind. As such, the volume is presenting differing perspectives on some fundamental questions rather than providing a definite set of firm conclusions.

There are three chapters on general policy (particularly on the precautionary principle, and risk assessment), four on regulatory trends (particularly on federalism, negotiations, and liability), four on global issues (particularly on climate change, trade, and sustainable development), and two on trans-national networks. Although the chapters on general policy and regulatory trends differ greatly, and some even contradict each other, those on global issues and on trans-national networks are more coherent. No doubt, however, the EU has become a leader, the US a laggard, as regards climate, biodiversity and water policies – all are fields, where multilateralism, burden sharing, and cooperation are needed, and where environmental protection has to be seen as part of the protection of the common good.

“It is the fundamental difference in attitudes ... that is the most striking (and worrying) divergence between US and EU policies”, says Paul Harris (p. 271). “The incorporation of the precautionary principle and the goal of sustainable development into the EU Treaty in the 1990s implies a deeper philosophical commitment than any recent administration in the US has been willing to make”, the editors add (p. 353). And they conclude: “The EU’s strong support for normative principles, such as the precautionary principle, common but differentiated responsibility, and sustainable development to ensure international equity reflects a worldview quite different

from the great power assumption that appears to govern Washington” (p. 368).

That picture, I think, would have become even more pronounced, if other issues had been investigated. For instance, chapters are missing on energy, chemicals, transport and other material flows where some progress towards ecological modernisation (*de-carbonisation* and *de-materialisation*) has been made but much still needs to be done. Development of a sustainable society requires major changes to socio-economic structures and decision-making institutions; it will require a shift to a new paradigm that incorporates environmental concerns in a far more integral way than is currently the case in both the US and the EU.

A more serious deficiency of Vig and Faure’s volume, however, may be that the understanding of environmental policy is mostly limited to the state and the supra-national level. Nearly nothing can be found on civil society, on environmental initiatives, and other (possible) stakeholders of the local Agenda 21 process. That’s a pity because many local communities, both in the US and the EU, have more progressive environmental strategies than do their national governments.

For that reason, it’s good to take up and thoroughly study Miranda Schreurs’ book. The US, Japan, and Germany have been pursuing environmental protection with different levels of enthusiasm and with different tools. And so this book asks for the reasons in the differences in their environmental policy approaches, and finds answers in the respective development of quite different environmental communities and policy-making rules, in institutional structures and the opportunities and barriers they presented to environmental actors in the three countries.

Three specific questions are addressed in the book in a comprehensive and detailed manner. The first has to do with why environmental movements became institutionalised in such different ways: there is a strong Green Party in Germany, a pluralistic but divided community of environmental NGOs in the US, and only a small and weak environmental community but strong and traditional bureaucracy in Japan. The second main question is in what ways differences in the make-up of environmental communities matter for environmental policy change, different policy styles, actor arrangements and engagement as regards both domestic and global environmental problems. The third main question is on changing perceptions and the national readiness to learn from others. How do actors in a given system look at the outside world to find support for their ideas and capabilities?

Japan learned much from the US, is very efficiency oriented and proceeds largely by seeking consensus. Germany took up lessons from her most progressive European neighbours, and agreed to a loss of sovereignty to the EU. The US, instead, seems captured by big business, misread globalisation as economic growth and free trade, and hasn't cared much for multilateral solutions and events elsewhere in the Rio-plus process.

There has been quite some change in Japan, Germany and the US in the relationships among state, industry, and society at large, and in the strategies and goals of societal actors in the environmental realm. The various chapters of Schreurs' book are full of authoritative evidence of that. But these changes have been quite different in timing and substance and so, over time, altered politics and policies towards the present state of controversy.

It is here, in the issues of differences, where the two books again coincide. All of the authors of Vig and Faure's edited volume seem to agree that the

EU of the 15, because of its constitutional structure and planned integration, has been and is a learning institution that has become environmentally conscious and embraced enriched environmental policy-making. The EU took the environmental challenge as a stimulus to innovation, and that hopefully will continue in the EU of the 25. There are reasons enough for new and substantive dialogues on greening society, on sustainable development strategies, on reducing the ecological footprint and on lightening the ecological rucksack. There is further and pressing need for such dialogues, not only between the US and the EU, the US, Japan, and Germany, but for all the world's nations, or at least the most willing. Both books show how such dialogues could be organised and what they should focus on.

To appear in: *The Environmentalist*, Vol. 24, No. 4.

Natur und Macht. Eine Weltgeschichte der Umwelt

[*Nature and Power. A World History of the Environment*]

By Joachim Radkau

München: C.H. Beck Verlag, 2002, 438 pp.

ISBN 3-406-48655-X.

A fine book, a significant book, but also a confusing one! Fine, because it provides a good example of the art of printing at its best and is written in a readable language. It is also a significant book, one of the author's main books on an important topic; a book that absolutely had to be written. But where is the best starting point - the Phoenicians, England's industrialisation, or perhaps the rise of the concept of "environment"? And how best structure the great profusion of potential material - with an eye to cultural history, geography, the environmental media, in terms of problems of water, air, and soil?

Somehow the author has managed to get it done, in 340 pages of text, in 83 pages of references, and a 16-page index. But what about his working hypothesis? In view of all the things that go into the making of a *world history of the environment* (thus the book's subtitle), or could be said on the subject of *nature and power* (the book's main title), the reader might think, it should be possible to know what is important and what is less important. A theory would be needed - for without theory everything is, as the saying goes, one-off - or at least a reasoned explanation of what distinguishes (and to what extent) environmental history from history, world environmental history from world history. If we are to discuss the issue of nature and

power, it would be important to state not only what nature is but what power is, too. The author fails to deliver a positive definition of these concepts - a theory - though he is by no means short on explanations of what his book is *not* concerned with.

Radkau pointedly disavows Toynbee's history of high civilization, and Braudel's history of the Mediterranean basin - not only but mainly for their lack of ecological considerations. But even time-conscious environmental history, he notes, is not without its blinkers; instead of focusing on agrarian and forest history, long distance migrations, or the great epidemics, the latter is for the most part concerned only with industrial water and air pollution or - as the author says - with nothing but the history of ideas of nature. We here find an inkling of what the author is intent on proving. He formulates it as follows: "In reality, environmental history does not merge into a history of environmental policy, i.e. into a history purposefully made by man; it instead remains in essence a history of the unplanned and unexpected, of the persistently unstable symbiosis between man and nature" (p. 339).

So Radkau does not want to enter history as a crisis historian. Most of the universal *leitmotifs* of environmental history - the author notes - are keyed to crisis. Environmental history, however, is - he goes on - not only the history of the fall and its never-ending aftermath, it is not only the story of humans and the works of men, it is also the story of sheep and camels, of swamps and barrens (p. 15).

Thus attuned, the author takes us on a long journey back to the Middle Ages and the early epochs of history (as regards the climate problem, even back to the Ice Age), to all continents, a good number of regions, to many peoples and cultures - to many where we would expect to find a symbiosis between man and nature, to Buddhism and the indigenous populations of

Australia and America, though not to certain others - not to the Amish, not to the Amhar, and not to the Eskimos either.

"Thinking about Environmental History," is the title of the book's first chapter; the second, dealing with the history of fire ecology and of man as hunter, gardener, and herdsman, is called: "In the Beginning was Fire." Symbiosis aplenty, had not then the "tragedy of the commons" appeared on the scene. The author takes a hard look at *Garret Hardin's* famed article of 1968 on the demise of the commons as the prototype of a dynamic ecological decline, though it should be noted that what Hardin had in mind was the global commons, particularly climate, biodiversity, and the oceans.

This is followed by an interesting section on the ecology of religion, called "Mother Earth and Father in Heaven." The significant environmental impacts of the world religions, the author states, are to be sought below the level of metaphysics, in trivial areas - monasticism, the rejection by the Catholic Church of contraceptives, the suppression of an important reason for forest protection in the form of the Judeo-Islamic disdain for pork, and the taboo on human excrements in Islamic and Hindu regions.

The third chapter of the book comes closest to keeping the promise held out by its title; it's on the history of "Water, Forests, and Power." It is here that the environment first came upon the scene as a common in need of protection against private self-interest. Hydraulic engineering, power relations, and ecological chain reactions are the one thread, formulated with an eye to the examples of Egypt and Mesopotamia, the terrace cultures of Indonesia and China, the canal cultures of Venice and Holland; the other thread, deforestation, forest clearance, and forest regimes, is exemplified with reference to Europe. Here many an author of renown is reinterpreted in the light of ecology and environmental policy: Geertz, Wittfogel, Needham, Huiz-

inga, and, who else, Goethe (on the lack of cleanliness among the Venetians).

Radkau dedicates one chapter to colonialism, in its trade- and settlement-related manifestations. The empirical examples range from the Mongol empire and the colonial history of India to the ruthless exploitation of forests, wildlife, and soils in North America. Highly interesting the last section of this chapter, dealing with repercussions of colonialism on the colonial powers themselves. In England, John Evelyn drew up the 17th century's most famous appeal for reforestation; guano imports from Peru, which got underway around 1840, not only eliminated the fertilizer deficit facing English agriculture, it was also this development that made possible the general introduction of the water closet.

The author has provided Chapters 5 and 6 with a motto that makes them absorbing reading, while at the same time casting them in a more indeterminate hue: "It is not the illusion of final knowledge but a receptivity for the flow of things and unexpected experiences that we will find at the end of environmental history" (p. 51). More than all else, the forests have become the embodiment of ecological conservation interests vis-à-vis the great variety of destructive political interests that have accompanied industrialisation. Citing a profusion of examples and presenting meticulous in-detail views, Radkau looks into the interests informing "the protection of nature and local traditions [*Heimat*]" in Germany, as well as the ideas surrounding a "national nature" in the U.S. In Germany, there was no *Rachel Carson*, and yet the environmental movement had its heyday here. This aspect holds a particular fascination for the historian - and so for others, these passages may be a bit on the long side.

The book ends on a prognostic note which the attentive reader might likewise be inclined to question: "Because there is absolutely no prospect of

any effective global regulation of the relations between man and the environment, and politics and its institutions are limited in their ability to deal effectively with the complexity and variability of environmental problems, mankind will, as always in its history, continue in essence to be reliant on nature's self-healing powers" (p. 339). First of all, the author is contradicting himself here, as he has cited numerous examples to prove that it has indeed been possible to successfully regulate the relations between man and his environment - now and then. And on the other hand, one could have looked more carefully into those self-healing powers of nature. Nature itself may indeed possess constructive power as a living being, this at least is the proposition of the *Gaia* hypothesis. But Joachim Radkau, the author of "Nature and Power," fails, in spite of the occasional quote, to take a substantive note of the author on the natural power of nature, James Lovelock. Reason enough for another book – perhaps in English?

Appeared in: *Environmental Values*, Vol. 10, No. 2; a German version appeared in: *Zeitschrift für Umweltpolitik und Umweltrecht*, Vol. 23, No. 2.

Mensch – Natur – Wissen. Grundlagen der Umweltbildung***[Humans – Nature – Knowledge. Foundations of Environmental Education]***

By Malte Faber and Reiner Manstetten

Göttingen: Vandenhoeck & Ruprecht, 2003, 240 pp.

ISBN 3-525-30141-3.

„Wenn man sich aber vorstellte, welchen Standpunkt die Natur im Sinne der Gesamtheit alles Lebendigen einnehmen würde, so müsste man bei Eingriffen von Menschen (in die Natur) nicht nur fragen: Was bedeuten sie für den Menschen? Sondern auch: Was bedeuten sie für andere Lebewesen und für das Leben überhaupt?“ (S. 42).

Das Gemeinschaftswerk eines Philosophen und eines Ökonomen, das diese Grundsatzfrage behandelt, lässt sich nicht nur an den üblichen Kriterien messen, die man an wissenschaftliche Bücher anzulegen pflegt: ob sie denn theoretisch interessant, empirisch relevant und zeitlich aktuell seien. Dieses Buch ist neben alledem auch radikal. Es handelt sich um Vorlesungen zur Komplexität des Verhältnisses von Mensch und Natur und es bezweckt eine Radikalisierung unseres Denkens darüber: „Die Sache, um die es geht, ist die Grundlegung einer Umweltbildung..., deren Anliegen (es ist), die Fähigkeit der Menschen zur Selbstwahrnehmung, Weltkenntnis und Naturbegegnung zu fördern, ...was die selbstkritische Reflexion ungeprüfter Überzeugungen, vorgefasster Meinungen und eingefahrener Handlungsmuster voraussetzt“ (S. 9).

Der ungeprüften Überzeugungen, vorgefassten Meinungen und eingefahrenen Handlungsmuster gibt es ganz sicherlich viele. Und so finden die Autoren in einer Art virtuellen Gesprächs mit dem Leser/der Leserin viele Gelegenheiten, radikale Fragen zu stellen und übliche, alt gewohnte Antworten über Bord zu werfen.

Dies traut man am ehestens wohl einem Naturwissenschaftler und – was das Verhältnis von Mensch und Natur angeht – einem Ökologen zu. Hier aber haben sich ein Philosoph und ein Ökonom zusammen getan, denen es um die zukunftsfähige Weiterentwicklung unserer Gesellschaft geht, worin der außer-, der mit-menschlichen Natur ein ihr gebührender Platz eingeräumt wird. Dazu bedarf es einer konsequenteren Sichtweise auf das Mensch-Natur-Verhältnis; Wissen verschiedener Gebiete müssen in einer gemeinsamen Begrifflichkeit gefasst und in einen gedanklichen Zusammenhang gestellt werden.

Diesen eigenen Anspruch versuchen die Autoren in zwölf Kapiteln einzulösen, einem ersten über die Bedeutung des Begriffs Umwelt, einem zweiten Kapitel über die zentralen Fragen und Aufgaben der Umweltbildung. Den beiden Wissenschaften mit dem gleichen griechischen Wortstamm – der *Ökologie* und der *Ökonomie* – gilt ein eigenes, das 3. Kapitel.

In den Kapiteln 4 bis 6 untersuchen die Autoren die Grundlagen des menschlichen Wissens, den „Wissenschaftslogos“, den „Wesenslogos“ und den „Daseinslogos“. Wie die Formen des Wissens zum Verhältnis von Mensch und Natur ineinander greifen, wird im 7. Kapitel anhand von Betrachtungen zur utopischen Vision *Francis Bacon's* und zu *Goethes Faust* dargestellt.

In den Kapiteln 8 und 10 geht es um die philosophischen Grundlagen einer neuen Sicht auf ökologische Fragen, wobei die gängigen Vorstellungen von Selbsterhaltung und Reproduktion ergänzt werden um das Konzept der Dienste (oder Fonds), die Menschen für andere Lebewesen und Ökosysteme leisten. In den abschließenden Kapiteln 11 und 12 geht es den Autoren um das, was sie die Grundlegung einer „menschlichen Wirtschaft“ nennen: Das individuelle Eigeninteresse, das die wirtschaftswissenschaftlichen Standardmodelle als hauptsächliche Orientierung des Menschen unterstellen, wird ergänzt, müsse ergänzt werden durch das Interesse an Gemeinschaft und das Interesse am Ganzen der Welt...

Umweltbildung heißt - so ließe sich nach Lektüre dieses Buch definitorisch festhalten - einerseits den Menschen in seiner Selbstwahrnehmung, seiner Welterkenntnis und seiner Naturbegegnung zu betrachten und zu verstehen, andererseits nicht weniger die Natur zu betrachten und zu respektieren, als Zusammenhang allen Lebendigen. Umweltbildung weiter zu befördern hieße, Zugänge zu diesen Ganzheiten zu finden, anthropozentrische *und* biozentrische Sichtweisen zu akzeptieren und sie zu integrieren.

In den Metaphern des letzten Kapitels ausgedrückt: Es gilt zu erkennen, dass es nicht nur, wie der derzeitige gesellschaftliche Grundkonsens und die herrschende Ökonomie es suggerieren, auf das Eigeninteresse, den *homo oeconomicus* ankommt. Es gibt auch das Interesse an der Gruppe, an Gemeinschaft, den *homo socialis*. Und es gibt schließlich, wenn auch vielleicht nur schwach ausgeprägt, Interessen, die sich auf die Welt als Ganzes beziehen, den *homo globalis*.

Welche Interessen unter welchen Bedingungen - räumlich wie zeitlich - überwiegen, das grundsätzlich mögliche Gleichgewicht im Verhältnis zwischen Mensch und Natur stören, und so zu schwerwiegenden oder irrever-

siblen Umweltschäden führen, diese Frage bleibt auch in diesem tief schürfenden Buch eher offen. Weitergehende Interessenharmonisierung, der *homo sustinens*, bleibt als Aufgabe – für Philosophen wie Ökonomen, für die Leser wie die Nicht-Leser.

Appeared in: *Universitas. Orientierung in der Wissenswelt*, Vol. 59, No. 4.

Our Common Journey. A Transition Toward Sustainability

By the Board on Sustainable Development

Washington, D.C.: National Academy Press, 1999, 363 pp.

ISBN 0-309-06783-9.

In the Netherlands, in Denmark, and elsewhere in Europe there have been interesting discussion forums focusing on the subject of sustainable development. We can now also report on an attempt from the United States.

A report moderate in length though far-reaching in its intent has appeared there under the title: *Our Common Journey*. The title quite consciously plays on the title of the epoch-making 1987 report of the World Commission on Environment and Development (*Our Common Future*), seeking in some lengthy passages to pick up again on, and to answer, the questions at that time formulated as fundamental.

The effort and commitment involved in this new report must have been enormous: the 25 members of the *Board on Sustainable Development* at the *National Research Council* (NRC), and scientists from various disciplines, discussed four years long how we - the Americans and the global citizens - can be steered on to a path of sustainable development.

This effort entailed evaluating some 375 NRC reports and hundreds of other sources, as well as holding various workshops and symposia. Now, the final report is available in book form. Occasion enough for a broader, worldwide discussion.

The report claims to be reinvigorating the strategic relations between scientific research, technical development, and long-term social interests. An attempt is made to forge links between critical ecological challenges with economic and social potentials. Three terms play a central role here: *transition* to sustainability, *journey*, and *navigation*. Sustainability is, accordingly, not an end product but a process; many, all of us, must set out on the journey; and here we have to rely on a good, reliable navigation capacity.

The Board is of the opinion (first part of the report) that the primary goals of the transition to sustainability should be to satisfy the basic needs of the growing future world population, by then far more (twice as?) numerous than at present; to safeguard the planet's life-support systems; and to overcome hunger and poverty. There are powerful counterintuitive trends working against these (high) objectives: urbanization, wealth disparities, wasteful consumption, power shifts in the wake of the growing globalisation of the economy. Yet, even the most alarming of trends - the Board says - can experience transition - a forceful, albeit naive, section of the report.

Comprehensive, then, the future scenarios presented (second part of the report), in which the Board focuses on three instruments: integrated evaluation models, scenario techniques, and regional information systems for use in achieving the required advances in fundamental knowledge and social and technological capacities. All that will be lacking, then, is the political will - and it (typically American?) is simply presupposed: sustainability, it is claimed, can be achieved within two generations (that is, by the year 2050 or so).

A good part of the argumentation is devoted to environmental risks, with environmental reporting experiencing a positive reassessment: It is - the authors argue - necessary to come to a rapid consensus on indicators of success or failure, above all because they are at present not yet available, at least not in consensual form. Indicators on global, planetary systems, on regional and sectoral vulnerability, and on local stocks of robust systems are set out here as necessary categories.

If, and to the extent that, we must aim for sustainability by means of trial and error, through social experimentation, we find ourselves in need of strategies and institutions that link imperfect knowledge, flexible management, and social learning.

The highlights of the report's most absorbing chapter in keywords: developing a science of sustainability; preparing for emergency action; doubling and multiplying material and energy efficiency; advancing regional and local implementation strategies...

Conducted in Europe, a sustainability discourse would be likely to include more concrete categories of steps and targets: reduction, phase-out, phase-in, for instance. And it would tend more to be an analysis of constraints than options. That, after all, distinguishes Europeans from Americans.

But Americans are also aware of their responsibility: "There is no precedent for the ambitious enterprise of mobilising science and technology to ensure a transition to sustainability. Nevertheless, the United States has a special obligation to join and help guide the journey" (p. 14). Exactly so, as the U.S. not only has a robust, powerful, scientific and technical capacity, it is also one of the greatest consumers of scarce global resources. Sustainably organised communities exist, but local AGENDA 21 processes

are still a rare phenomenon in the U.S. So, modesty where it is appropriate, resolution where it is called for.

A readable, a stimulating, visionary report on our - as the title rightly puts it - common journey to sustainability.

Appeared in: *International Journal of Social Economics*, Vol. 29, No. 4;
reprinted in: *Environmental Values*, Vol. 11, No. 2.

Institutionelle Reformen für eine Politik der Nachhaltigkeit***[Institutional Reform for a Policy of Sustainability]***

By Jürg Minsch, Peter-Henning Feindt, Hans-Peter Meister, Uwe Schneidewind, and Tobias Schulz

In collaboration with Marc Mogalle, Jochen Tscheulin, Claus Wepler, Jürgen Wüst, and Rold Wüstenhagen

Berlin and Heidelberg: Springer, 1998, XIX + 445 pp.

ISBN 3-540-64592-6.

Following years of laborious discussion on what long-term environmentally sound or (better!) sustainable development really is, five authors, with five assistants, have addressed the question of the means, the 'how.' This they have done on behalf of the Enquete Commission of the 13th German Bundestag on the "Protection of Man and the Environment" – and done it in a way, that must be termed impressive and futile at the same time.

The authors start out by pleading for an enlargement of the debate on a policy of sustainability: "The 'what' involved in concretising the goals bound up with the different poles of 'sustainable development' must not ... lose sight of the 'how' of social organisation" (p. VIII). After all, the authors argue, far from being a simple management problem, sustainability is a future-oriented process of learning, searching, and formative action, one characterized by widespread ignorance and uncertainties, and entailing a broad spectrum of conflicts. By addressing the issue of institutional reform (the title of the study), the task is to determine what shape politics and society should be given if we are to come closer to sustainability – understood as a regulative idea.

So, we are not to rely solely on the market as an omnipotent search and learning process; there is need for some policy-making. So far, so good. But the answer that the authors then give reveals them as what they in fact are – theorizing academics, far removed from practice and everyday life.

Building on a comprehensive (better: overly extensive) analysis rooted in social theory and political economy, the authors present four so-called basic strategies the implementation of which represent, it is claimed, the 'pillars of a policy of sustainability': *reflexivity, participation/self-organization, redress and conflict resolution, and innovation*.

For each of these four basic strategies the authors formulate sub-strategies, 60 of which the present reviewer was able to detect in the second part of the study (pp. 139-379), called the "Institutional Atlas". So, things seem to be made complicated before they can be made concrete. This is what one may expect of theoreticians, but do we really have to go along with it?

What, for instance, are *reflexivity strategies*? Here, the authors specify five partial strategies with a total of 15 sub-strategies: "Discursive elaboration of a national sustainability strategy," one of them is called; "Discursive further development of the institution of an Enquete Commission," another. Many a reader may founder at this point, many a politician actually will give up. And with the other three basic strategies parcelled out in just about the same way (a total of 12 partial strategies and 45 sub-strategies), the picture of the future takes on a somewhat nebulous hue.

Here, at the latest, it would have been time to back-couple with practice, to pull the methodology brake. And the authors know it, too: "While earlier less differentiated societies, in a more or less unfree fashion, took relatively inefficient albeit integrated decisions, the decisions taken under formally

free conditions, in our systemically differentiated society are relatively efficient but disintegrated" (p. 62).

This disintegration, the authors claim, poses – in the guise of social, ecological, and economic constraints – a threat to society as a whole, and may, in the future, even encroach upon individual freedom.

In view of this measure of insight we are, of course, forced to raise the question of whether the 60 proposals on institutional reform developed in this commissioned study are in fact suited to achieve the integration demanded of a strategy of sustainability. So, what will be the fate of this imaginative and resourceful book?

Many a reader, disconcerted, will put it aside because of its flawed workmanship – the occasional typesetting errors, duplication, confusion. That, however, would be regrettable, particularly in view of the fact that the authors had little, too little, time to prepare their text for publication.

Other readers may criticize the book's methodology, which, in its high level of differentiation, leads straight into the dilemma of disintegrated politics that the authors wanted to guide us out of.

We, the readers of this study (and of the present review), will thus have to take pains to prevent the subject from being forgotten, for, as the authors rightly note: In dealing with the topic of sustainability the concern is not only the 'what' but also, and in particular, the 'how' of politics. This book, therefore, is in urgent need of public discussion.

Appeared in: *International Journal of Social Economics*, Vol. 27, No. 12; a German version appeared in: *E + Z. Entwicklung und Zusammenarbeit*, Vol. 41, No. 10.

Turning Point. An End to the Growth Paradigm

By Robert U. Ayres

London: Earthscan Publications Ltd., 1999, XIV + 258 pp.

ISBN 1-85383-439-4.

This is a very personal and, at the same time, wide-ranging book, written by one of neo-classical economics's most innovative critics, Robert U. Ayres. He starts with a confession: "Though I am an academic person by temperament and profession, this book is much more informal than the usual academic monograph. I make no apologies for that" (p. XI). And he gives reasons for not doing so: "I have deep misgivings, both about economic growth, as currently defined and measured, and about world trade as an instrument for achieving it" (ibid.).

This turnabout, he starts to discuss in rich detail, has been mostly triggered by the evidence that economic growth is benefiting only the few, and that large part (the major part, he seems to incline) of statistical growth reflects increasingly frantic activity. In many respects, Ayres says, "it amounts to running faster and faster to stay in the same place - 'wheel spinning' rather than true wealth creation" (p. XII). Particularly, growth in recent decades is attributable to expenditures resulting from unavoidable transportation, from a growing need for protection against threats to life, health and property, and from 'living on capital', i.e. depletion of natural resource stocks and environmental degradation.

Also he says, the fraying of the social fabric is hardly disputable; a great part of contemporary political discourse concerns the symptoms, though not necessarily the causes, thereof. The trends (the causes) that matter are urbanisation, industrialisation, materialisation, communication and economic globalisation. From these trends, disturbing social and environmental impacts arise: alienation, insecurity, environmental degradation and deterioration...

Ayres is convinced that these impersonal trends, however, are not the whole cause of impending trouble: He puts some (most?) of the blame on the spread of simplistic economic doctrines, based on oversimplified models that no longer reflect the most important aspects of reality.

The text is a composition of empiric analysis and theoretical reflection. In ten chapters, Ayres looks for the 'drivers of change', for trends as causal agents, and asks where this might lead to; to economic crisis, to social and environmental crisis, or to sustainability, eco-restructuring and improved governance both on the national and the global level?

All these chapters are a plenty of empirical details and, at the same time, somewhat speculative, indicating that trends might be changed, that 'turning points' are possible - not only in a personal but also in a social and political sense. By summarizing the arguments and specifying the implications at the end of each of these chapters, Ayres helps his readers to follow even highly complex ranges of ideas.

The text culminates in the two concluding chapters on the economic growth paradigm, and the free trade paradigm. It is here where Ayres deploys his full capacity as a vivid writer and fundamental critic. Economic growth, today, is benefiting only a small proportion of the population and continues to impinge on the social fabric and the natural environment. The theory underlying the

old growth paradigm, Ayres says, is faulty: “It no longer makes sense to seek increased productivity by investing capital in labor-saving technology. What must be done instead - call it *the new paradigm* - is to increase the value of the outputs and reduce the physical resource - material and energy - inputs“ (p. 203).

Regarding the free trade paradigm, Ayres also finds strong words. The benefits of free trade are appropriated by a few. Across the globe, environmental limits are being reached and breached. Thus, he concludes “... the supposed benefits (of free trade) are largely illusory ...; international trade between grossly unequal partners is only benign in the sense that a tumour may be benign; that is, it doesn’t do much harm as long as it is relatively small in scale... When the scale of global trade grows too fast, the side effects are likely to prove very unpleasant“ (p. 224).

Well, not every reader will agree or need agree. And some, or even many will doubt that a turning point has come. Still, Robert U. Ayres’ book offers, as others did, compelling and vigorous arguments that make provocative reading and helps clarify positions, trends and possible futures.

Appeared in: *International Journal of Social Economics*, Vol. 27, No. 11.

Limits to Growth – The 30-Year Update

By Donella Meadows, Jorgen Randers, and Dennis Meadows

White River Junction, Vermont: Chelsea Green Publishing Company,
2004, XXII + 338 pp.

ISBN 1-931498-58-X.

This now is the third book in a series on the limits to growth. The first one appeared in 1972, became a bestseller in quite a few countries, and was translated into more than 30 languages. The second, revised edition was published in 1992 and its title signalled a further warning: "Beyond the limits". In a few cases, it appeared humanity had already overshoot the limits of the Earth's support capacity, most notably the sink function of various ecological systems. This new, third book presents the essential parts of the original analysis, but also extends the analytical model (World 3) with new variables, updates the available empirical data, and includes insights acquired over the past 30 years.

Only a few books have really changed the world, and the way towards sustainable development may still be long and troublesome. The authors of "Limits to growth", without question, have been very successful as academic writers, but they could not stop further degradation and deterioration of the natural environment. They are aware of this failure, and in the Introduction to this volume they express their feelings clearly: "Our work fell short in many ways... We worry that current policies will produce global overshoot and collapse through ineffective efforts to anticipate and cope with ecological limits....We failed in our earlier books

to convey this concern in a lucid manner. We failed totally to get the concept of 'overshoot' accepted as a legitimate concern for public debate" (p. XX).

This then is the focus of the new book: ecological overshoot, and systems collapse, but also the possibilities of transition towards a sustainable development path on planet Earth. "Our main goal is to restate our 1972 argument in a way that is more understandable and better supported by the data and examples that have emerged during the past decades. In addition, we wish to give the many teachers who use our earlier text updated materials for use with their students" (p. XVIII).

The global challenge, the authors believe, can be simply stated: To reach sustainability, we must increase the consumption levels of the world's poor, whilst at the same time reducing humanity's total ecological footprint. To do so, not only are technological advances needed, but also personal change, and longer planning horizons. There must be greater respect, caring and sharing across political boundaries. But so far, the authors argue, no political party really has garnered broad support for such a program, certainly not among the rich and powerful. Meanwhile, the total human ecological footprint gets larger day by day (on this, see pp. XV).

An important methodological innovation of this book is a calibration of the computer model World 3 from 1991. An indicator of the well-being of the average world citizen is integrated, called the human welfare index (HWI), and an indicator of humanity's total environmental impact on the planet is added, the human ecological footprint (HEF). While the first indicator approximates the UNDP Human Development Index, the second is an adaptation of Mathis Wackernagel's ecological footprint concept. The resulting new model, called World 3-03, is available on a CD-ROM

(www.chelseagreen.com). An important innovation as regards contents consists in the update of empirical data and the more precise definition of what is to be understood by 'overshoot'. (Actually, that could have been made the main title of the volume). Probably the most important innovation of the book, however, is pedagogical: that is, the dialogical character of the text. The authors speak with the reader, they get him/her to understand the various scenarios and computer runs, and they involve him/her in a discourse on political priorities, on barriers to and chances of change - in the economy, in society, in every person.

Global overshoots and systems collapse like the thinning of the stratospheric ozone layer, climate change, species loss, receding forests, population expansion, the persistence of hunger, growing water shortage, diffusion of toxic wastes, have made the authors more pessimistic than they were in their earlier works. But in the two chapters of the book on transitions to a sustainable system (pp. 235-264), and on tools for the transition to sustainability (pp. 265-284), they are (typically American?) full of optimism. And they give compelling reasons: "Once the limits to growth were far in the future. Now they are widely in evidence. Once the concept of collapse was unthinkable. Now it has begun to enter into the public discourse – though still as a remote, and academic concept" (p.XXII). A book might seem like a weak tool in the struggle to attain sustainable development, but where there has been an agrarian and an industrial revolution, there also could be a sustainability revolution.

In a set of 10 scenarios up to the year 2100, the authors present possible futures. They do not *predict* the future, they just show how the twenty-first century *may* evolve (pp.169-249). In the first 8 scenarios the main system parameters – population, resources, food, industrial output, consumer

goods, food and services per person, life expectancy, HWI and HEF – are far from a sustainable path, including overshoot and collapse. Scenario 9, however, illustrates sustainability; the global system has come into equilibrium. Finally, Scenario 10 includes all the changes that were incorporated in Scenario 9, but with the policies being implemented 20 years earlier, in 1982 instead of 2002. Moving towards sustainability 20 years sooner would have meant a lower final population, less pollution, more use of renewable resources, a higher welfare for all, and a smaller ecological footprint...

Thirty years ago, it was rather easy for the critics to dismiss limits to growth, especially by focusing only on the resource side and not on the sink side of the economy. In today's world, with its collapsing fisheries, falling water tables, expanding deserts, bleaching coral reefs, eroding soils, loss of biodiversity and rising global temperature, unqualified criticism should no longer be possible – not to mention the already current and further increasing conflicts over such impacts.

Whoever reads this new, updated version of "Limits to growth" will realise how useful the systems approach of thinking and the scenario approach to presenting possible futures is to encourage learning, reflection, and personal choice. We owe a great debt to the authors, among them the late Donella (Dana) Meadows, for reminding us that the time for a global transition towards sustainability is getting shorter and shorter. This book, I believe, should therefore be made critical reading in all the efforts of the coming UN decade on education for sustainable development.

To appear in: *Environmental Values*, Vol. 13, No. 4; a German version appeared in: *Universitas. Orientierung in der Wissenswelt*, Vol. 59, No. 9.

